C L A I M S

1. Machining method of a last (1) for the production of shoes, which comprises the rough-hewn, piercing, identification marking, and removal of the surpluses (4, 5) operations resultants of the rough-hewn operation, characterized in that it comprises the following steps:

a) Manual positioning of the last (1) in a machining center by numerical control (10), fixing it by fitting the last in housings (2, 3) in the surpluses (4, 5) located in the heel-pad and in the toe of the last (1) and first movable fastening means (11a, 11b) in the machining center (10).

b) Piercing and identification marking of the last (1) by a drill (15) of the machining center (10), the last (1) being held and positioned by said first movable fastening means (11a, 11b).

c) Manual removal of the last (1) from the first movable fastening means (11a, 11b) and manual fastening of it to second movable fastening means (19, 20) in the machining center (10) that introduces inside holes (6a, 6b) made previously in the last (1) in the step of piercing and identification marking.

d) Removal by automatic maching, by means of the drill (15), of the surpluses (4, 5) that have been left free.

2. Method, according to claim 1, characterized in that the operation piercing of the last (1) comprises the machining of a plurality of holes (6d) in the sole of the last (1), a hole (6c) in the instep shoulders, and other two holes (6a, 6b) of different diameter in its upside.

3. Method, according to claim 2, characterized in that the positioning operation of the last (1) for its

piercing and its identification marking is carried out rotating the last (1) by means of the first movable fastening means (11a, 11b).

4. Method, according to the claims 2 or 3, characterized in that the removal process of the surpluses (4, 5) is carried out fixing the last (1) by the two holes of different diameter (6a, 6b) made in its upside to the second movable fastening means (19, 20).

5. Method, according to claim 4, characterized in that the positioning of the last (1) in the removal step of the surpluses (4, 5) is carried out rotating it by means of the second movable fastening means (19, 20).

6. Method, according to anyone of claims 1 to 5, characterized in that the first movable fastening means (11a, 11b) fix the last (1) on an horizontal position and the second movable fastening means (19, 20) fix the last (1) on a vertical position.

7. Method, according to claim 6, characterized in that the turn of the last (1) by the first movable fastening means (11a, 11b) and by the second movable fastening means (19, 20) is carried out about an horizontal axis.

8. Machining center by numerical control (10) for piercing, identification marking, and removal of the surpluses (4, 5) resultants of a previous rough-hewn process of a last (1) for the production of shoes, characterized in that it comprises a plurality of drills (15, 17), first movable fastening means (11a, 11b) for their fitting in housings (2, 3) in the surpluses (4, 5) located in the heel-pad and in the toe of the last (1), and second movable fastening means (19, 20) for their introduction inside holes (6a, 6b) made in the last (1) by a drill (15).

9. Center (10), according to claim 8, characterized in that the first movable fastening means

(11a, 11b) comprise a first support (11b) for their fitting in the housing (3) of the surplus (5) of the heel-pad of the last (1), and a second support (11a) for their fitting in the housing (2) of the surplus (4) of the toe of the last (1), both supports (11a, 11b) being able to vary their angle and being able to rotate about the first support (11b) about their own axis.

10. Center (10), according to claim 9, characterized in that the second support (11a) can rotate on their own axis.

11. Center (10), according to claims 9 or 10, characterized in that the second support (11a) is fixed to means (13, 14) for its height and depth regulation for the correct fastening of lasts (1) of different sizes and types.

12. Center (10), according to claim 11, characterized in that the height regulation means comprise an endless screw (14) which can be operated by a rotatory handle, and the depth regulation means comprise a pneumatic cylinder (13) which can be operated by a manual handle.

13. Center (10), according to anyone of claim 9 to 12, characterized in that the supports (11a, 11b) include a pair of protrusions (12) complementary to the housings (2, 3) of the surpluses (4, 5) of the last (1).

14. Center (10), according to claim 8, characterized in that the second movable fastening means (19, 20) comprise an arm (18), which can rotate about an axis, which includes two cylinders (19, 20) of different diameter, the cylinder of greater diameter (20) including pressing means against the walls of the hole (6a) of the last (1) in which is housed.

15. Center (10), according to claim 14, characterized in that the pressing means comprise a hollow shaft (21) whose external walls present a cross-section

change (22), which houses inside it a piston (23) of a pneumatic cylinder (24), said piston (23) being connected on its end to a head (25) provided with a skirt which includes flexible wings (26), so that when the piston (23) strikes back, it forces the head (25) to travel over the external walls of the shaft (21), so that it arrives to the cross-section change (22) the wings (26) are expanded, against the walls of the hole (6a) of the last (1).

16. Center (10), according to claims 8 to 15, characterized in that the drills (15, 17) are interchangeable.